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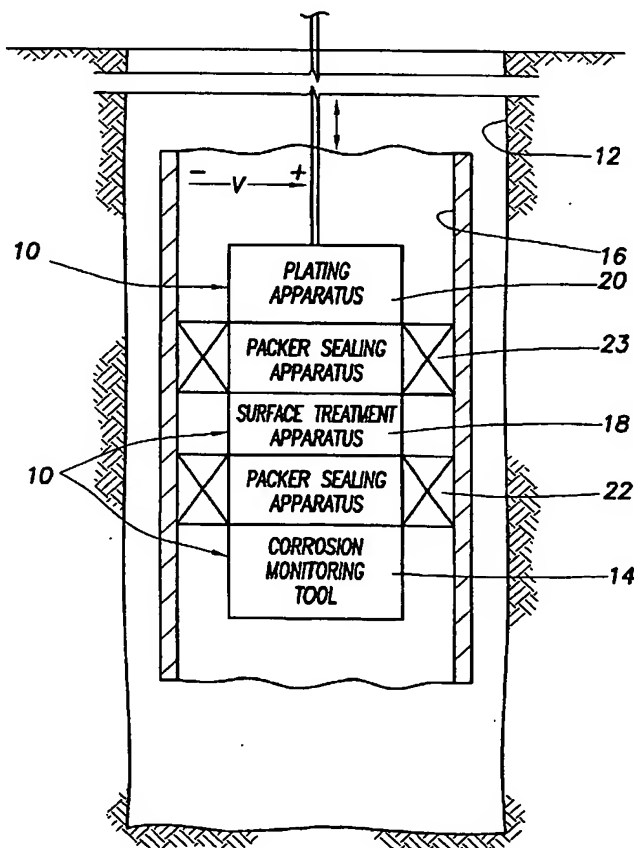
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[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR DOWNHOLE PIPE OR CASING REPAIR



(57) Abstract: A downhole pipe or casing repair method and apparatus (10) includes a corrosion monitoring tool adapted for examining an interior of a pipe or tubing or casing (16) to create a record of the condition of said interior of said pipe, a surface treatment apparatus for cleaning said interior of said pipe, a plating apparatus for plating a new surface over the interior of said pipe after the surface treatment apparatus cleans the interior of said pipe, a packer sealing apparatus for sealing the surface treatment apparatus from the corrosion monitoring tool (14), and another packer sealing apparatus for sealing the plating apparatus from the surface treatment apparatus (18). The corrosion monitoring tool will examine the interior of the pipe, the surface treatment apparatus will clean the interior of the pipe, the plating apparatus (20) will plate a new surface over the newly cleaned interior of the pipe, and the corrosion monitoring tool will re-examine the interior of the pipe after the plating step is completed.

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## INTERNATIONAL SEARCH REPORT

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PCT/US03/14993

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) : C25D 5/02, 17/00

US CL : 204/224R, 272; 205/131, 132

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 204/224R, 272; 205/131, 132

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EAST: 204/272.ccls. and clean\$3; 205/131-132.ccls. and clean\$3

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3,673,073 A (TOBEY ET AL) 06 June 1972 (06.06.1978), column 2, lines 1-20.	1, 5
X	US 3,857,772 A (SASAKI et al) 31 December 1974 (31.12.1974), column 3, lines 53-68.	1, 5
Y	US 4,826,582 A (LAVALERIE et al) 02 May 1989, See abstract.	1, 5
A	US 4,849,084 A (VOUZELLAUD) 18 July 1989 (18.07.1989)	

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document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

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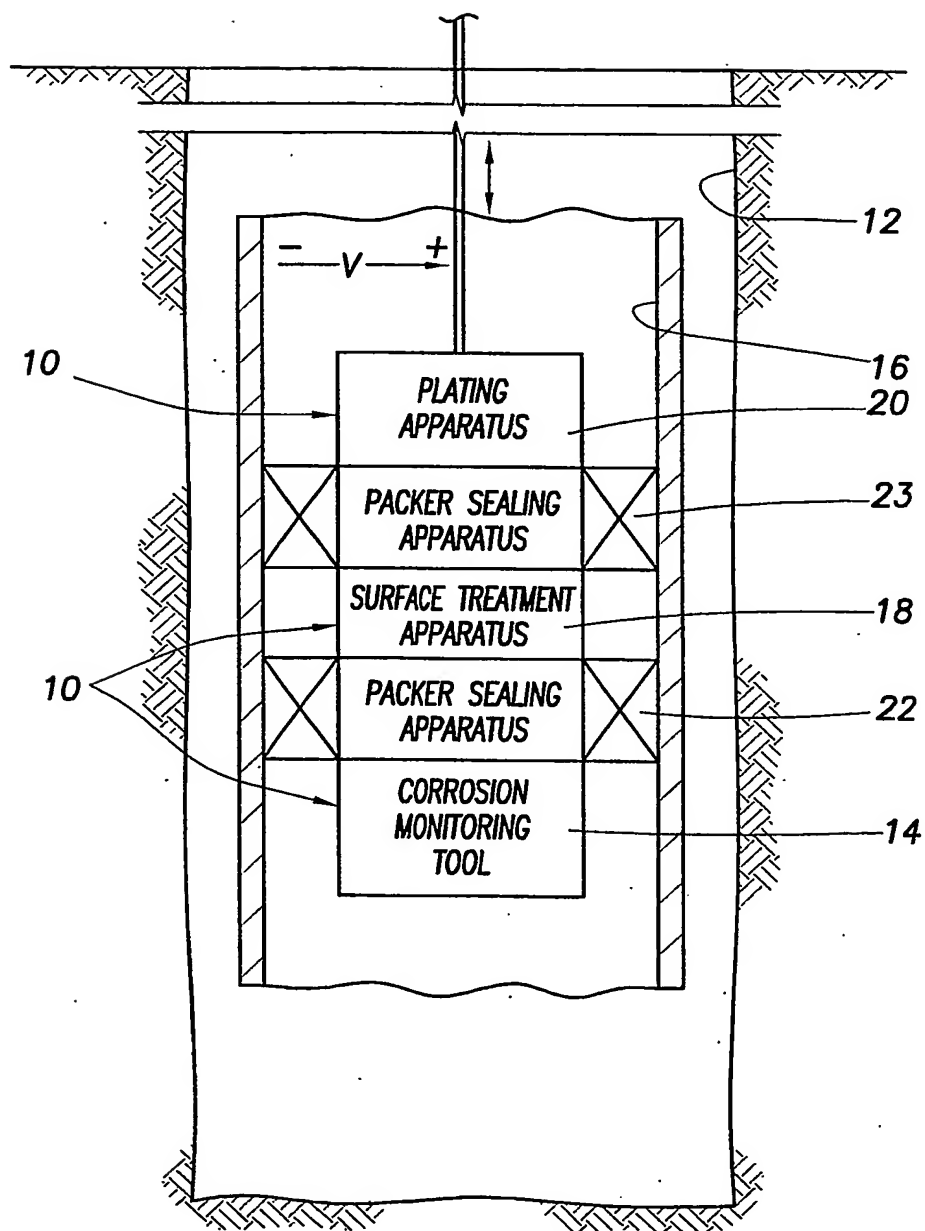


FIG. 1

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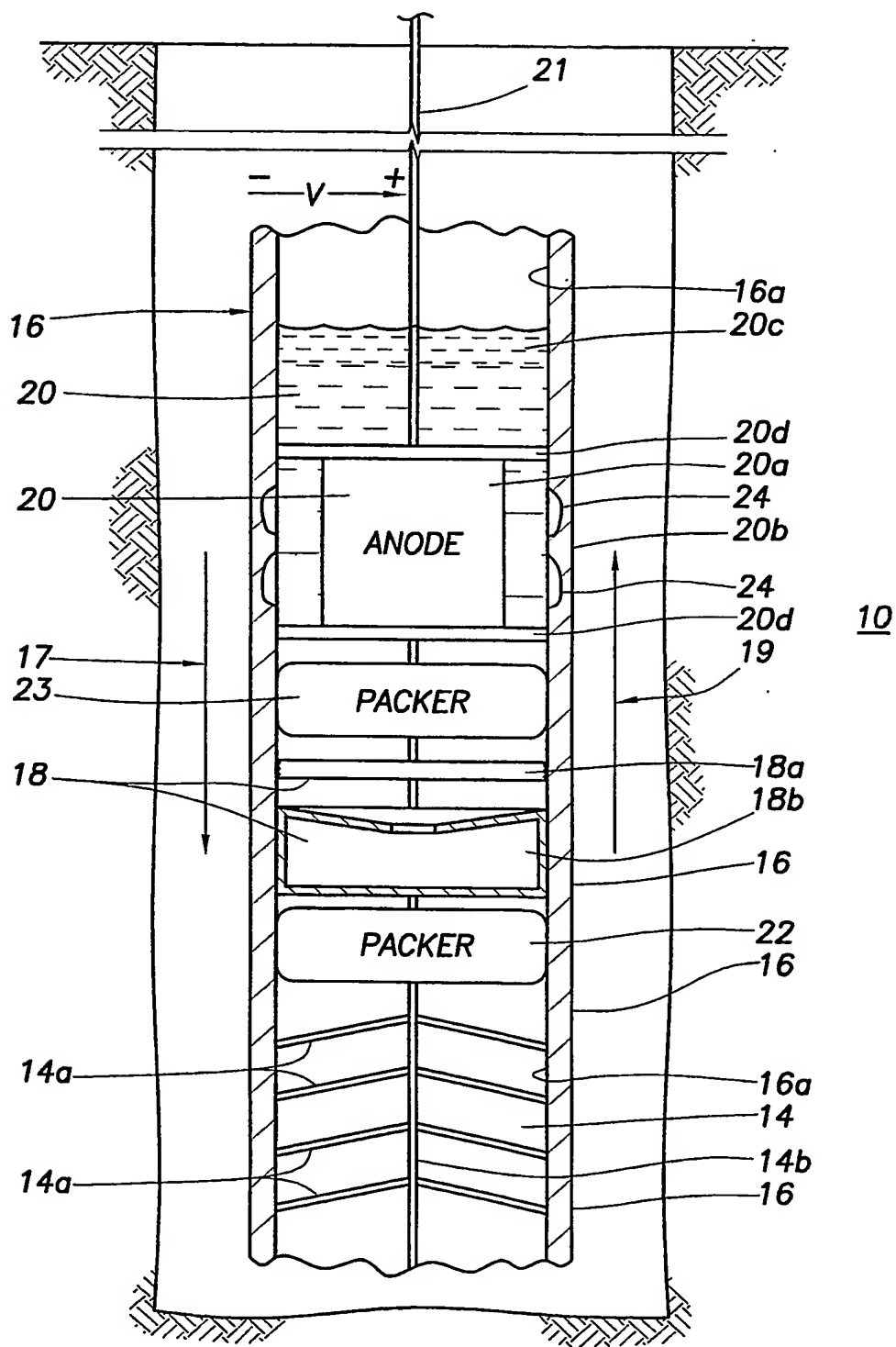


FIG.2

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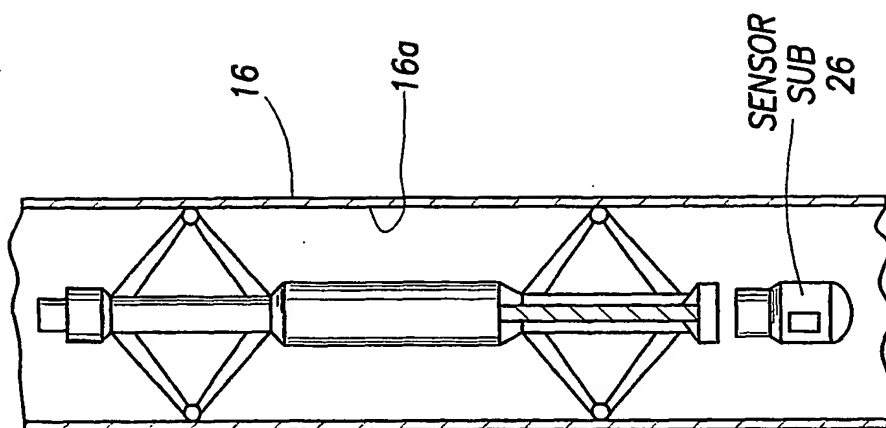


FIG. 4

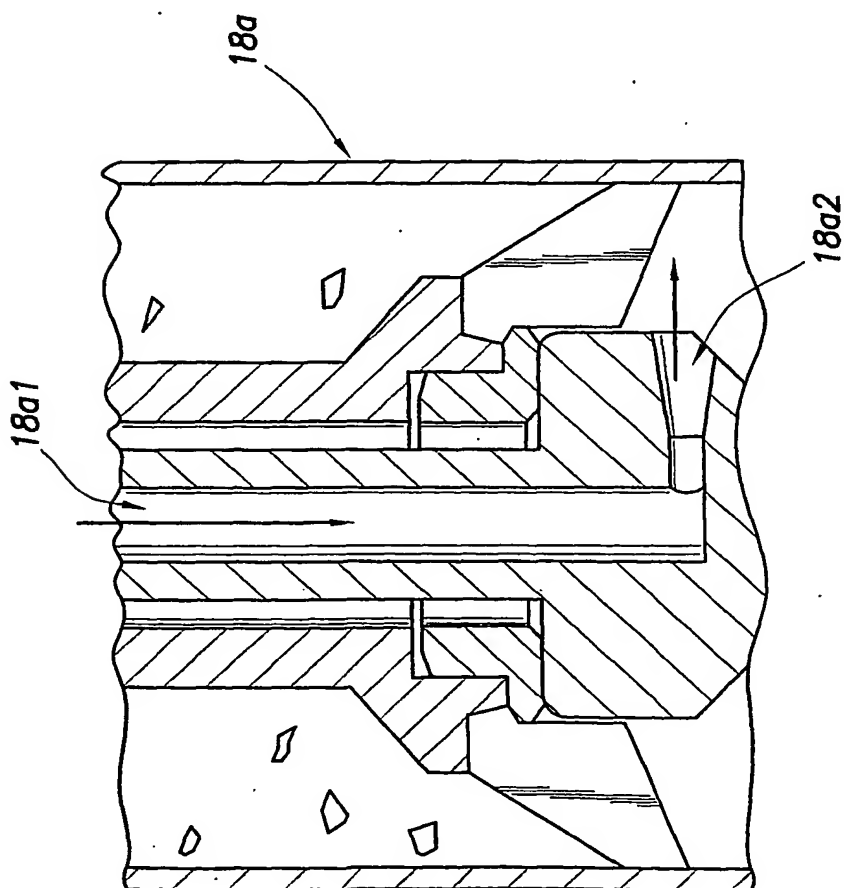


FIG. 3

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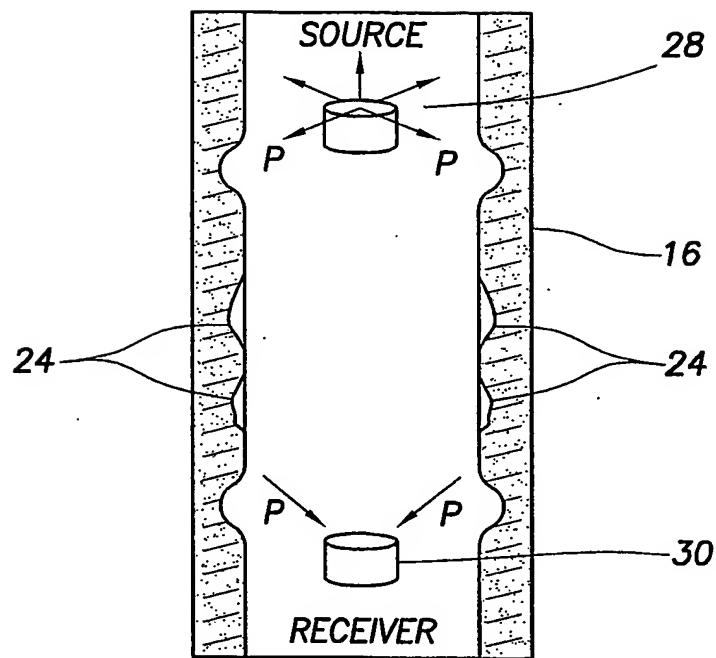


FIG. 5A

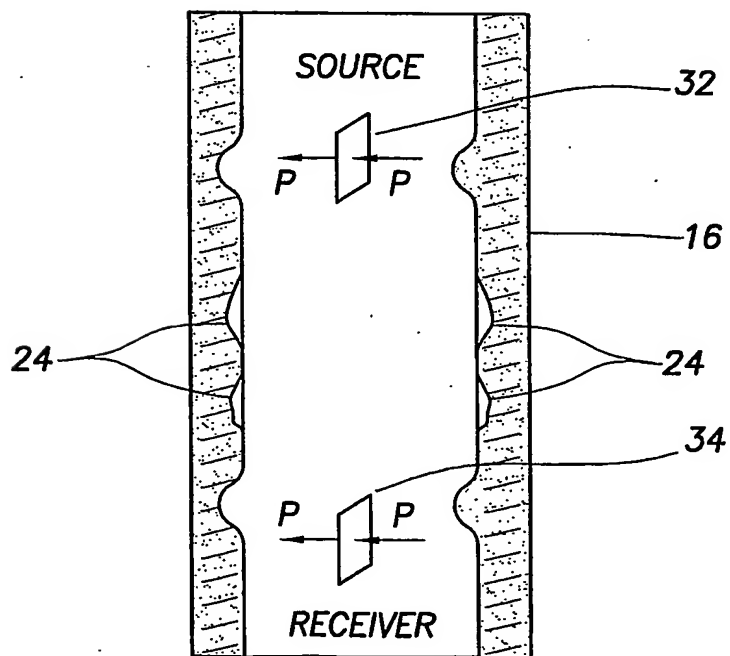


FIG. 5B

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